

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Kazutaka Haba, et al.

CASE NO.: P98,1872

SERIAL NO: 09/066,851

GROUP ART UNIT: 1742

FILING DATE: April 28, 1998

EXAMINER: S. Ip

INVENTION: "SOLDER MATERIAL"

11017 U.S. PTO  
10/071320



INFORMATION DISCLOSURE STATEMENT TRANSMITTAL LETTER

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

S I R:

Submitted herewith is an Information Disclosure Statement for consideration in the above-identified application.  
This Information Disclosure Statement is submitted:

- ☐ Within three months (1) of filing date of a national application; (2) of date of entry of the national stage as set forth in 37 C.F.R. §1.491 in an international application; or (3) before the mailing date of a first Office Action on the merits, whichever occurs last. (No fee is required.)
- ☒ After the mailing date of a first Office Action but before (1) mailing of a final action under 37 C.F.R. §1.113; or (2) mailing of a notice of allowance under §1.311, whichever occurs first.
  - ☐ Payment of the fee set forth in 37 C.F.R. §1.17(p) accompanies this submission; or
  - ☒ The certification specified in 37 C.F.R. §1.97(e) is made below. (No fee is required.)
- ☐ After the mailing of (1) a final action under 37 C.F.R. §1.113; or (2) notice of allowance under 37 C.F.R. §1.311 whichever occurs first, but before payment of the issue fee. The certification specified in 37 C.F.R. §1.97(e) is made below. The Commissioner hereby is petitioned to consider the Information Disclosure Statement accompanying this submission. Payment for the Petition fee set forth in 37 C.F.R. §1.17(i)(1) accompanies this submission.
- ☒ The undersigned counsel for applicant(s) hereby certifies each item of information identified in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.
- ☐ The undersigned counsel for applicant(s) hereby certifies that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, or to the knowledge of the undersigned, after making reasonable inquiry, was known to any individual designated in 37 C.F.R. §1.56(c) more than three months prior to the filing of the statement.
- ☐ A check in the amount of \$\_\_\_\_\_ to cover any required fee is enclosed.
- ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Account No. 08-2290. *A duplicate copy of this sheet is enclosed for this purpose.*

Very respectfully,

HILL & SIMPSON

A Professional Corporation

*John W. Cornell* (Reg. No. 30,619)

John W. Cornell, Reg. No. 30,619

Hill & Simpson, P.C.

Sears Tower, 85th Floor

Chicago, Illinois 60606

Telephone: (312) 876-0200

When phoning re this application,  
please call (312) 876-0200.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to the Commissioner of Patents and Trademarks, Washington, D.C 20231 on February 1, 1999.

*John W. Cornell*  
NAME

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
INVENTORS: Kazutaka HABU; Naoko TAKEDA

ATTORNEY DOCKET NO.: 09792909-5360

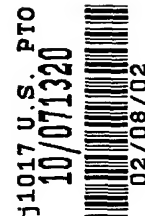
SERIAL NO.: Not yet assigned

GROUP ART UNIT: Not yet assigned

FILED: February 8, 2002

EXAMINER: Not yet assigned

TITLE: "METHOD TO MANUFACTURE LEAD-FREE SOLDER  
MATERIAL HAVING GOOD WETTABILITY" (as amended)



**IDS REQUEST AND EXPLANATION OF RELEVANCE**

Assistant Commissioner for Patents  
Washington, DC 20231

S I R:

In accordance with the provisions of 37 C.F.R. § 1.56, Applicant requests that citation and examination of the references identified on the attached form PTO/SB/08A-B, copies of which are enclosed herewith in accordance with 37 C.F.R. § 1.98, be made during the course of examination of the above-referenced application for United States Letters Patent.

**I. SUBMITTED U.S. PATENT DOCUMENTS**

<u>Number</u>	<u>Patentee Name</u>	<u>Publication Date</u>
Not applicable		

**II. SUBMITTED FOREIGN PATENT DOCUMENTS**

<u>Number</u>	<u>Patentee Name</u>	<u>Publication Date</u>
JP 62-230493	Masuzawa Masao, et al.	October 9, 1987
JP 8-206874	Yamaguchi Atsushi, et al.	August 13, 1996
JP 10-6075	Niha N	January 13, 1998

WO 92/17617	KRONBERG, James W.	October 15, 1992
EP 0 612 578A1	Jin, Sungho, et al.	August 31, 1994
EP 0 847 828A1	Ogashiwa, Toshinori, et al.	June 17, 1998
EP 0 710 521A1	Ninomiya, Ryuji, et al.	May 8, 1996
EP 0 639 426A1	Kawaguchi, Toranosuke, et al.	February 22, 1995
JP 09206983	Haniyu Kazutaka	August 12, 1997

### III. SUBMITTED NON-PATENT LITERATURE DOCUMENTS

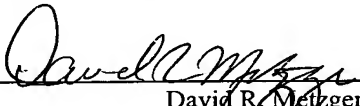
<u>Author</u>	<u>Article Title</u>	<u>Source Title</u>	<u>Date</u>	<u>Page(s)</u>	<u>Vol./Issue Nos.</u>	<u>Publisher</u> <u>Publishing Location</u>
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Seiki Sakuyama, et al. "Solderability of Solder-Coated Surfaces for SMT Printed Wiring Boards" Fujitu-Scientific and Technical Journal, vol. 29, no. 4, 21 December 1993, pages 357-366, XP000439110

Tetsuya Nakatsuka, et al. "Development of High Reliable Pb Free Solder," Production Engineering Research Laboratory, Hitachi, Ltd. Feb. 6-7, 1997, 3<sup>rd</sup> Symposium on "Microjoining Assembly Technology in Electronics"

### IV. EXPLANATION OF RELEVANCE

The above items were made of record in the parent application, U.S. Serial No. 09/066,851, filed on April 28, 1998. Copies of the above items are submitted herewith.

<p>SONNENSCHN NATH &amp; ROSENTHAL P.O. Box 061080 Wacker Drive Station, Sears Tower Chicago, IL 60606-1080</p> <p>Attorney Customer Number: 026263 Phn: (312) 876-8000 Fax: (312) 876-7934</p>	<p>Respectfully Submitted SONNENSCHN NATH &amp; ROSENTHAL Attorneys for Applicant</p> <p>by:  David R. Metzger Reg. No. 32,919 February 8, 2002</p>
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**Burden Hour Statement:** This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO				<div>Complete if Known</div>	
<div>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</div> <div>(use as many sheets as necessary)</div>				Application Number	Not yet assigned
				Filing Date	February 8, 2002
				First Named Inventor	Kazutaka HABU, et al.
				Group Art Unit	Not yet assigned
				Examiner Name	Not yet assigned
				Attorney Docket Number	9792909-5360
Sheet	2	of	2		

[illegible]

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

**Burden Hour Statement:** This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.

PTO 1449

37 CFR 1.501  
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT  
IN A PATENT  
(use several sheets if necessary)

Sheet 1 of 1

Docket No.  
P98,1072Serial No.  
09/066,851Applicant  
Kazutaka Habu, et al.Filing Date  
April 28, 1998Group Art Unit  
1742

## U.S. PATENT DOCUMENTS

Examiner's Initials	Document Number	Date	Name	Class	Subclass	Filing Date If appropriate
	AA					
	AB					
	AC					
	AD					
	AE					
	AF					
	AG					

## FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation	
	AH	JP 62-230493				Yes	No
	AI	JP 8-206874	Oct. 9, 1987	Japan			
	AJ	JP 10-6075	Aug. 13, 1996	Japan		X	
	AK		Jan. 13, 1998	Japan		X	
	AL					X	

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AM	Tetsuya Nakatsuka, et al., "Development of High Reliable Pb Free Solder", Production Engineering Research Laboratory, Hitachi, Ltd., Feb. 6-7, 1997, 3 <sup>rd</sup> Symposium on "Microjoining Assembly Technology in Electronics"
AN	
AO	

Examiner

Date Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.  
Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



PTO 1449  37 CFR 1.501 <b>INFORMATION DISCLOSURE STATEMENT IN A PATENT</b> (use several sheets if necessary)					Docket No. <b>P98,1072</b>		Serial No. <b>09/066,851</b>	
					Applicant <b>Kazutaka Habu et al.</b>			
					Filing Date <b>April 28, 1998</b>		Group Art Unit <b>1742</b>	
<b>U.S. PATENT DOCUMENTS</b>								
Examiner's Initials		Document Number	Date	Name	Class	Subclass	Filing Date If appropriate	
	AA							
	AB							
	AC							
<b>FOREIGN PATENT DOCUMENTS</b>								
		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	AD	WO 92/17617 /	Oct 15, 1992	PCT			X	
	AE	EP 0 612 578 A1 /	Aug 31 1994	EP			X	
	AF	EP 0 847 828 A1 /	June 17, 1998	EP			X	
	AG	EP 0 710 521 A1 /	May 8, 1996	EP			X	
	AH	EP 0 639 426 A1 /	Feb 22, 1995	EP			X	
	AI	JP 09206983 (Abstract)	Aug 12, 1997	Japan			X	
	AJ							
	AK							
<b>OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)</b>								
	AL	Seiki Sakuyama, et al., "Solderability of Solder-Coated Surfaces for SMT Printed Wiring Boards", Fujitsu Scientific & Technical Journal, Vol. 29, No. 4, Dec. 21, 1993, pages 357-366, XP 000439110						
	AM							
	AN							
Examiner			Date Considered					
<b>*EXAMINER:</b> Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								